

Appendicular Skeleton.

Resting upon the rim of chondrocranium which projects behind the occipital border of the cranial shield is a single pair of large supratemporal plates, each tapering towards the middle line, and from beneath this shield there emerges behind a pair of still larger post-temporal plates marked with small pittings, apparently of the sensory canal-system, near its outer border (Brit. Mus. no. P. 6908 *a*). There is nothing worthy of remark in the imperfectly known pectoral arch which these elements support, and the number of the pectoral basals still remains to be discovered. There are, however, several good portions of pectoral fins, and when viewed from below these exhibit the slightly lobate form of the appendage (*e. g.* no. P. 6908 *c*). The slender anterior fulcra seem to have fused with the foremost ray, and this is hence remarkably stout; at its upper end it exhibits a very large concave articular facette. The hindermost rays of the fin are short and excessively delicate. The pelvic bones are separate, contracted mesially, and expanded at each end, and the small pelvic fin is fringed with conspicuous slender biserial fulcra. The fulcra on the median fins are also large, slender, and biserial, and the tips of a few of the gradually lengthening anterior rays of these fins are successively lost in the fulcral series (no. P. 6909). At the base of these fins, it may be added, the few fulcral scales are simple, not subdivided into two halves.

Squamation.

The scales are very thin over the whole of the trunk and only appear thickened on the atrophied upper caudal lobe (no. P. 6909). Their exposed face is distinctly rhombic and often punctate or partly striated, but chiefly marked by the concentric lines of growth.

[To be continued.]

XXXI.—On *Lepidoptera Heterocera* from China, Japan, and Corea. By JOHN HENRY LEECH, B.A., F.L.S., F.Z.S., &c.

[Continued from p. 235.]

Genus RUMIA.

(Dup.; Hampson, Fauna Brit. Ind., Moths, iii. p. 183 (1895).)

Rumia tridentifera.

Rumia tridentifera, Moore, Lep. Atk. p. 30 (1887); Hampson, Fauna Brit. Ind., Moths, iii. p. 184 (1895).

Five male specimens and one female received from Tachien-lu, Pu-tsu-fong, and How-kow: June, July, and August.

In one example from Pu-tsu-fong the large spot is only outlined in black, the interior being brownish; in a specimen from How-kow this spot is entirely reddish brown and rather less in size than in the specimens from Western China.

Distribution. Sikhim (*Hampson*); Western China and Thibet.

Rumia trimaculata, sp. n. (Pl. VI. fig. 9.)

Male.—Pale yellow. Primaries have a reddish patch at the base, an oblong one on costa extending to median nervure and enclosing a lunule, and a square one at apex; there are two indistinct wavy transverse lines, the first commencing in a reddish dot on costa, and the second from inner edge of the apical patch. Secondaries have a blackish central spot and narrow wavy band. Under surface yellow: inner margin of primaries whitish and the costa tinged with pinkish; there are two blackish transverse lines, but the first one is nearer the base of the wing than on upperside; discal spot large, blackish; apical spot reddish, but faint: secondaries have a blackish central spot and submarginal line. The central band of secondaries shows through on the under surface, and the basal line on under surface of primaries and the submarginal of secondaries are each more distinct than on the upper surface.

Expanse 50–56 millim.

Female deeper yellow, apical patch of primaries absent.

Six male specimens and five females received from Moupin, Che-tou, Pu-tsu-fong, Wa-ssu-kow, Ta-chien-lu, and How-kow: July.

Hab. Western China and Thibet.

Rumia inornataria, sp. n.

Sulphur-yellow. Primaries have an annulation at end of cell and two transverse lines on outer marginal area. Secondaries have a discal dot, a central band, and line beyond. All these markings, with the exception of the central band on primaries, are shadowy and indistinct. The costa of primaries is narrowly tinged with pink, and the fringes are slightly tinted with the same colour. Under surface: primaries have a subbasal line, annulation at end of cell, and a submarginal line, all rather clearer than above: secondaries have a central and a submarginal line, but neither are very distinct.

Expanse 50 millim.

One female specimen from Che-tou, July.

Hab. Western China.

Rumia sulphurea.

Rumia sulphurea, Butl. Ann. & Mag. Nat. Hist. (5) vi. p. 123 (1850); Ill. Typ. Lep. Het. vi. p. 54, pl. cxiv. fig. 6 (1856); Alph. Rom. sur Léop. vi. p. 51 (1892).

Alphéraky records one female specimen from the Province of Szechuen, taken in August.

Distribution. Sikhim (*Hampson*); Western China (*Alphéraky*).

Genus CORYMICA.

(Walk.; *Hampson*, Fauna Brit. Ind., Moths, iii. p. 135 (1895).)

Corymica specularia.

Caprilia specularia, Moore, Proc. Zool. Soc. Lond. 1867, p. 649, pl. xxxiii. fig. 11.

Thiopsyche Pryeri, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 393 (1873); Ill. Typ. Lep. Het. iii. p. 29, pl. xlviii. fig. 2 (1879).

Corymica vitrigera, Butl. Ill. Typ. Lep. Het. vii. p. 101, pl. cxxxv. fig. 14 (1889).

Corymica specularia, *Hampson*, Fauna Brit. Ind., Moths, iii. p. 136 (1895).

Appears to be common in Central and Southern Japan; it also occurs at Gensan in Corea and at Chia-ting-fu, Moupin, and Omei-shan in Western China, and Chang-yang in Central China.

Varies a good deal in depth of colour and also in definition of marking.

The Chia-ting-fu specimen agrees with *C. vitrigera*, Butl., which *Hampson* considers synonymous with *C. specularia*.

Distribution. Dharmasala; Sikhim; Nilgiris; Ceylon (*Hampson*); Japan; China.

Corymica gensanaria.

Corymica gensanaria, Leech, Entom., Suppl. p. 56 (May 1896).

One female specimen from Gensan, taken in July.

Hab. Corea.

Genus ILICRINIA.

(Hüb. ; *Hampson*, Fauna Brit. Ind., Moths, iii. p. 136 (1895).)

Ilicrinia cordiaria.

Geometra cordiaria, Hüb. Geom. pl. viii. fig. 41, pl. lxvi. fig. 342.

Ilicrinia cordiaria, Hüb. Verz. Schm. p. 257; *Meyrick*, Trans. Ent. Soc. Lond. 1892, p. 111.

Ilicrinia nuptaria, Brem. Lep. Ost-Sib. p. 80, pl. vii. fig. 5.

Ilicrinia cordiaria, *Hampson*, Fauna Brit. Ind., Moths, iii. p. 136.

There were several examples of the *nuptaria* or pale yellow form of this species in Pryer's collection.

Distribution. South Europe; Syria; Kirghistan; Amur; Japan; Yesso; Kulu.

Ilicrinia flava.

Norcia flava, Moore, Lep. Atk. p. 233, pl. viii. fig. 2 (1887).

Ilicrinia flava, Hampson, Fauna Brit. Ind., Moths, iii. p. 187 (1895).

There is a specimen in the National Collection from Chekiang.

Distribution. Eastern China; Sikhim; Khásis; Nágas.

Genus *SPILOPERA.*

(Warr. Proc. Zool. Soc. Lond. 1893, p. 402.)

Spilopera debilis.

Heterolocha debilis, Butl. Ill. Typ. Lep. Het. ii. p. 47, pl. xxxv. fig. 9 (1878).

Spilopera debilis, Warr. Proc. Zool. Soc. Lond. 1893, p. 402.

There was a series in Pryer's collection. I took the species at Gensan in July, and I have received it from Hakodate. Pratt met with it at Chang-yang in June and July.

Distribution. Japan; Yesso; Corea; Central China.

Spilopera gracilis.

Endropia gracilis, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 371 (1879).

Paraclipsis gracilis, Warren, Novit. Zool. i. p. 463 (1894).

Spilopera gracilis, Hampson, Fauna Brit. Ind., Moths, iii. p. 190 (1895).

Several specimens in Pryer's collection. I took examples at Tsuruga and Gensan in July.

Hampson considers *S. unbrata*, Warr., to be synonymous with *S. gracilis*, Butl.

Distribution. Central and Southern Japan; Corea; Khásis; Assam.

Spilopera obliquilinea.

Epione obliquilinea, Moore, Lep. Atk. p. 229 (1887).

Spilopera obliquilinea, Hampson, Fauna Brit. Ind., Moths, iii. p. 192 (1895).

Five male specimens from Ichang and a female from Moupin, June and July.

Distribution. Eastern Himalayas; Central and Western China.

Spilopera angularia, sp. n.

Yellowish buff, suffused with brownish; outer marginal

area of all the wings tinged with rosy; a blackish-brown line commencing one fifth from apex of primaries is acutely angulated below apex and traverses both wings, terminating on middle of the abdominal margin; this line is inwardly shaded with olive-brown and followed at its termination by a blackish patch; there is a brown annular discal spot on primaries. Fringes brown. Under surface yellow, freckled with violet-grey; outer marginal area of all the wings clouded with rosy and limited by a violet-grey band; discal spot on primaries as above.

Expanse 31 millim.

Two male specimens from Kia-ting-fu, June.

Hab. Western China.

Allied to *Spilopera obliquilinea*, Moore.

Spilopera crenularia, sp. n.

Apex of primaries pointed, outer margin below apex crenulate to obtuse angle at end of third median nervule; outer margin of secondaries crenulate, angled about the centre. Pale ochreous, powdered with darker on outer marginal area. Primaries have two transverse rufous lines, the first is angulated below the costa, the second is parallel with outer margin and is followed on apical area by an almost square reddish patch with a rosy centre. Secondaries have an oblique rufous central line and an undulated dusky one beyond, but the latter is not clearly defined. Fringes pale brown, marked with darker. Under surface similar to above, but the outer line on primaries is broader and the outer one on secondaries more distinct.

Expanse 32 millim.

One male specimen from Chang-yang, August.

Hab. Central China.

Spilopera (?) *roseimarginaria*, sp. n.

Pale ochreous, clouded with pinkish, especially on costal and basal area of primaries; the basal area of primaries is limited by a diffuse fuscous band, which is angulated below costa; median band also fuscous and diffuse; outer marginal area greenish fuscous, tinged with rosy, mottled with blackish, and limited by a fuscous line obliquely angled below costa. Secondaries have a blackish discal dot and an interrupted diffuse central band; outer marginal area rosy, limited by a fuscous line, which is slightly incurved below costa. Fringes fuscous brown. Under surface rather more

yellow, and the outer area of secondaries is not rosy, but yellow, suffused inwardly with fuscous.

Expanse 40 millim.

One male specimen from Chang-yang and an example of each sex from Omei-shan, July.

Hab. Central and Western China.

Spilopera? divaricata.

Agathia? divaricata, Moore, Lep. Atk. p. 250, pl. viii. fig. 15 (1887).

Spilopera? divaricata, Hampson, Fauna Brit. Ind., Moths, iii. p. 192 (1895).

One male specimen from Omei-shan, July.

Distribution. Khásis; Western China.

Genus CRYPSICOMETA.

(Warren, Novit. Zool. i. p. 463 (1894).)

Crypsicometa incertaria.

Phasiane incertaria, Leech, Entom., Suppl. p. 49 (May 1891).

Phasiane incertaria, var. *suffusa*, Leech, l. c.

Crypsicometa incertaria, Warren, Novit. Zool. i. p. 463 (1894).

Several specimens of the type form from Yokohama (?) and Gifu in Pryer's collection, as well as an example of *suffusa* from each locality. Two examples of the var. *suffusa* were taken by my native collector in Kiushiu, and I received one female specimen of that form from Moupin, taken in July.

Distribution. Japan; Kiushiu; Western China.

Genus NADAGARA.

(Walk.; Hampson, Fauna Brit. Ind., Moths, iii. p. 193 (1895).)

Nadagara albovenaria, sp. n.

Pale brown, striated and freckled with blackish; neuration whitish. Primaries have two whitish lines, both oblique; the first is angled below the costa and outwardly edged with dark brown; the second is inwardly edged with blackish and preceded by a dark brown suffusion; there is a short oblique blackish dash from apex; discal spot black. Secondaries have a black discal spot and a whitish slightly curved line inwardly edged as on primaries. Fringes pale brown, traversed by a line of dark brown, chequered with dark brown on the primaries, except below apex, where there is a blackish spot, and preceded by a dark brown line. Under surface whitish brown, irrorated with fuscous, except on abdominal

margin of secondaries; discal spot and outer line as on upper surface.

Expanse 40 millim.

One example of each sex in Pryer's collection.

Hab. Japan.

Allied to *N. vigaia*, Walk.

Genus RHYNCHOBAPTA.

(Hampson, Fauna Brit. Ind., Moths, iii. p. 194 (1895).)

Rhynchobapta cervinaria.

Noreia cervinaria, Moore, Lep. Atk. p. 233 (1887).

Rhynchobapta cervinaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 194 (1895).

Lozogramma (?) *bilineata*, Leech, Entom., Suppl. p. 48 (May 1891).

There were several specimens from Gifu in Pryer's collection. I have also received examples from Ichang and Changyang and from Omei-shan.

Distribution. Sikhim; Khásis (*Hampson*); Japan; Central and Western China.

Rhynchobapta punctilinearia.

Nadagra punctilinearia, Leech, Entom., Suppl. p. 55 (May 1891).

I obtained some specimens, including both sexes, at Nagasaki in May, and my native collector also met with examples in the island of Kiushiu.

Hab. Kiushiu.

Rhynchobapta flaviceps.

Nadagara flaviceps, Butl. Trans. Ent. Soc. Lond. 1881, p. 419.

Rhynchobapta flaviceps, Hampson, Fauna Brit. Ind., Moths, iii. p. 195 (1895).

I obtained this species at Fushiki and Tsuruga in July and at Nikko in September. Mr. Manley sent me specimens from Yokohama, and I have received examples from Kiushiu, where they were taken by a native collector.

It also occurs in June at Ichang and at Omei-shan in July, but I have only one example from each of these localities.

Distribution. Khásis (*Hampson*); Japan; Central and Western China.

Rhynchobapta flavicostaria, sp. n.

Leadens grey, without traces of transverse bands; all the wings have a black discal spot; costa of primaries yellow;

fringes yellow. Under surface as above, but fainter in colour.

Expanse 27 millim.

One female specimen from Ichang, June.

Hab. Central China.

Genus LUXIARIA.

(Hampson, Fauna Brit. Ind., Moths, iii. p. 195 (1895).)

Luxiaria contigaria.

Acidalia? contigaria, Walk. Cat. Lep. Het. xxii. p. 754 (1861).

Acidalia inexactata, Walk. *op. cit.* xxiii. p. 770.

Acidalia tephrosaria, Moore, Proc. Zool. Soc. Lond. 1867, p. 643.

Luxiaria fasciosa, Moore, Lep. Atk. p. 254 (1887).

Luxiaria contigaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 195 (1895).

Bithia amasa, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 405 (1878); Ill. Typ. Lep. Het. iii. p. 45, pl. lii. fig. 4 (1879).

This species appears to be common in Western China, and all the forms enumerated above are represented. There was a series of the *fasciosa* (*amasa*) form from Ohoyama in Pryer's collection; I obtained specimens of the same form at Tsuruga and Gensan in July, and my collectors at Chang-yang and in the island of Kiushiu.

Distribution. Dharmasála; Sikhim; Khásis; Mahableshtar; Nilgiris; Ceylon; Sumatra; Borneo (*Hampson*); Japan; Kiushiu; Corea; Central and Western China.

Luxiaria consimilaria, sp. n.

Whitish, irrorated with greyish brown, most densely on costal area of primaries; there are three transverse pale pinkish-brown bands on primaries, but the first two are obscure, the third is fairly broad and extends from the apex to middle of the inner margin; this band is preceded by a series of black dots originating on the costa about one fourth from apex; there are also indications of a wavy submarginal line. Secondaries have three transverse bands; the first of these appears to be a continuation of the third on primaries; the second is fairly broad and is edged inwardly by a wavy blackish line; submarginal line obscure. Fringes whitish brown, preceded by a thin blackish line, which is dotted with black at the extremities of the nervules. Under surface whitish, freckled with greyish brown on primaries, especially on costal and basal areas; all the wings have two transverse dusky bands and a blackish discal spot.

Expanse 35 millim.

One male specimen from Moupin and one male and two females from Omei-shan, July.

Hab. Western China.

Closely allied to *L. obliquata*, Moore. Perhaps only a local form of that species.

Genus KRANANDA.

(Moore, Proc. Zool. Soc. Lond. 1867, p. 648.)

Krananda semihyalina.

Krananda semihyalina, Moore, Proc. Zool. Soc. Lond. 1867, p. 648; Hampson, Fauna Brit. Ind., Moths, iii. p. 199 (1895).

I met with this species at Nagasaki in May, and there were a few specimens in Pryer's collection from Central Japan.

Distribution. Dalhousie; Sikhim; Khásis (*Hampson*); Japan; Kiushiu.

Krananda lucidaria, sp. n. (Pl. VI. fig. 10.)

Basal two thirds of primaries and half of secondaries diaphanous, clouded with brownish; outer third of primaries and half of secondaries clouded with purplish brown, except on the outer margin of the latter.

Primaries have a velvety black subbasal band transversely intersected by a pale sinuous line; on the inner margin towards the boundary of the diaphanous area there is a slightly oblique velvety-black bar, this is twice interrupted; there are some pale brown marks on costa before apex and on outer margin below apex; submarginal band sinuous, pale brown, bordered inwardly with dusky, but suffused below the costal portion. Secondaries irrorated with blackish; a brown cloud represents a diffuse oblique band terminating in a black mark just before abdominal margin; discal spot black; submarginal band pale, but not clearly defined. Under surface: basal portion of the wings whity brown, outer portion (except at apex of primaries and upper angle of secondaries) ferruginous brown, merging into ochreous on outer margin of secondaries; primaries have a ferruginous-brown crescent in the cell, which meets an elbowed transverse line of the same colour; secondaries have a slightly curved subbasal band, also ferruginous brown.

Expanse 58 millim.

One female specimen from Omei-shan, July.

Hab. Western China.

*Krananda latimarginaria.**Krananda latimarginaria*, Leech, Entom., Suppl. p. 56 (May 1891).*Trigonoptila latimarginaria*, Warren, Novit. Zool. i. p. 441 (1894).

There were specimens in Pryer's collection. I have also received the species from Nikko and Gensan, July.

Distribution. Japan; Corea.*Krananda oliveomarginata.**Krananda oliveomarginata*, Swinh. Ann. & Mag. Nat. Hist. (6) xiv. p. 139.

One specimen from Omei-shan, July.

Distribution. Khásis; Western China.

Genus ZANCLOPERA.

(Warren, Novit. Zool. i. p. 441 (1894).)

Zanclopera straminearia, sp. n.

Pale stramineous. Primaries have the base and costa tinged with pale ferruginous, and there is a transverse band of the same colour beyond the middle with some black dots inside it towards inner margin; this band is continued on the secondaries. Under surface similar to above, but all the wings have a black discal dot, and the transverse bands have black dots on them.

Expanse 40 millim.

One male specimen from Chang-yang, June.

Hab. Central China.

Genus MACARIA.

(Curtis; Hampson, Fauna Brit. Ind., Moths, iii. p. 201 (1895).)

*Macaria hebesata.**Macaria hebesata*, Walk. Cat. Lep. Het. xxiii. p. 931; Butl. Ill. Typ. Lep. Het. iii. pl. lii. fig. 1.*Macaria sinicaria*, Walk. Cat. Lep. Het. xxvi. p. 1650.*Macaria proilitaria*, Brem. Lep. Ost-Sib. p. 81, pl. vii. fig. 7.*Macaria maligna*, Butl. l. c. pl. lii. fig. 3.*Macaria irrorata*, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 440.

I have an extensive series of this very variable species, which was common in most of the localities in Japan that I visited, with the exception of the island of Yesso, where I did not see a specimen. Pryer, who had a fine series, seems to have considered that *irrorata* was distinct from *sinicaria*, but in his 'Catalogue of the Lepidoptera of Japan' he states,

when referring to *sinicaria*, "*hebesata* I believe to be the male, *maligna* the female." I must confess, however, that I cannot satisfactorily separate the specimens in my series into even two species. The series comprises examples agreeing respectively with each of the named forms, and all these are connected by intergrades; so that it is not possible to parcel them out into well-defined groups of varieties. It seems most probable that *hebesata* is the Asiatic representative of the European *astimaria*.

Meyrick (Trans. Ent. Soc. Lond. 1892, p. 103) places *proditaria*, Brem., in *Opisthograptis*.

Distribution. China; Japan; Corea; Amur; E. Siberia; N. India.

Macaria pervolgata.

Macaria pervolgata, Walk. Cat. Lep. Het. xxiii. p. 930 (1861); Hampson, Fauna Brit. Ind., Moths, iii. p. 205 (1895).

Two female specimens from Chang-yang, June and August. One male example from Chia-ting-fu, July, and three females from the island of Kiushiu. In one female from Chang-yang the ground-colour is suffused with pale brownish, the discal spot is very minute, and there are no black spots beyond the outer line of secondaries.

Distribution. Bengal; Poona (*Hampson*); Central and Western China; Kiushiu.

Macaria defixaria.

Macaria defixaria, Walk. Cat. Lep. Het. xxiii. p. 932 (1861).

Macaria zachera, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 405 (1878); Ill. Typ. Lep. Het. iii. p. 45, pl. lii. fig. 2 (1879).

A common species in Central and Southern Japan. I have received it from Gensan and Ningpo. It also appears to be common in Central and Western China, July.

Distribution. Japan; Yesso; Eastern, Central, and Western China.

Macaria intermediaria, sp. n.

Allied to *M. defixaria*, Walk., but the ground-colour is more suffused with brownish and the angulation of secondaries is less pronounced; the angle of third line of primaries is further from outer margin, and below the angle the line is less oblique. On the under surface the outer lines on both wings are more broadly suffused with ochreous. The black spots beyond the centre of transverse band are somewhat similar to the same character in *M. defixaria*.

Expanse, ♂ 34, ♀ 39 millim.

One example of each sex from Wa-shan and two females from Chia-ting-fu, July.

Hab. Western China.

Macaria cacularia.

Macaria cacularia, Oberth. Etud. d'Entom. xv. p. 24, pl. iii. fig. 32 (1891).

Occurs at Chia-kou-ho, Chia-ting-fu, Huang-mu-chang : July. I received specimens from each locality.

Hab. Western China.

Macaria monticolaria, sp. n.

Violet-grey. Primaries have three transverse lines; the first and second are elbowed below costa and near together, but not well defined; the third has an upward angulation below costa, bordered below the angle by a dusky shade and on the costa by a diffuse bracket-shaped mark. Secondaries have two transverse lines; the first is faint, but the second is double and well developed; beyond the outermost there is a deep black spot and some scales of the same colour indicating a second spot. All the wings have a faint blackish discal dot. Fringes pale, marked with darker at the extremities of the nervules and shaded with darker towards costa of primaries. Under surface whitish, coarsely speckled with dark brown: there are two dark, almost blackish lines on each wing; the first is oblique, wavy, and the second oblique and curved towards costa of secondaries; beyond the second line the outer margin is dark brown marked with ochreous, and there are patches of the ground-colour at apex and towards inner angle of primaries, and between the anal angle and the middle of outer margin of secondaries.

Expanse 36 millim.

One male specimen from the summit of Omei-shan, July.

Hab. Western China.

Allied to *M. intermediaria*.

Macaria elongaria, sp. n. (Pl. VI. fig. 14.)

Apex of primaries obtusely produced; outer margin of secondaries crenulate, with a small angular projection about the middle.

Whitish grey, powdered and clouded with brownish. Primaries have three transverse oblique brown lines, commencing as spots of the same colour on the costa; the first is elbowed below costa, the second has a slightly darker discal spot on it; the third is followed on the costa, below which it

is elbowed, by a rufous patch, and has a series of blackish marks, intersected by a thin white line, on its outer edge between the inner margin and the third median nervule; there is a brownish cloud below apex. Secondaries have two brown lines; the first is oblique, the second double, curved, slightly wavy, and enclosing a pale line; there are a series of black specks indicating a submarginal line, and the discal spot is black. Fringes pale at their base, darker outwardly, and preceded by a brown line. Under surface whitish, freckled with brownish, and tinged with ochreous on costa of both wings; brown transverse lines, except the first of primaries, which is absent, darker and broader than above; the outer one on each wing is followed by an outwardly diffuse band, which does not reach the inner margin in either case, and there are no black marks on that of primaries; the apical area beyond the outer line is brown, tipped with whitish; discal spot black.

Expanse 44 millim.

One male specimen from Moupin, July.

Hab. Western China.

On the under surface the markings approach those of *M. intermediaria*.

Macaria proximaria.

Parasemia Pryeri, Butl. Trans. Ent. Soc. Lond. 1881, p. 417 (nom. præoc.).

There was a fine series from Central Japan in Pryer's collection. I met with the species at Nagasaki in May and at Gensan in June. It also occurs in Central and Western China in June and July.

Distribution. Japan; Kiushiu; Corea; Central and Western China.

Macaria shanghaiaria.

Macaria shanghaiaria, Walk. Cat. Lep. Het. xxiii. p. 926 (1861).

Semiöthisa (Macaria) graphata, Hedem. Horæ Soc. Ent. Ross. xvi. p. 51, pl. x. fig. 4 (1881).

There were a few specimens in Pryer's collection. I captured the species at Tsuruga in July and at Hakodate in August.

This species seems far more closely allied to *M. alternata* than to *M. notata*, with which latter Hedemann compares his *graphata*. I am inclined to think that it may be a local form of the first-named, which occurs in Amurland.

Distribution. N. China; Japan; Yesso; Amur.

Graphata, Hedem., is included in the genus *Opisthograptis*, Hübn., by Meyrick (Trans. Ent. Soc. Lond. 1892, p. 103).

Macaria Pryeri.

Macaria Pryeri, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 437 (1879).

There were specimens from Yokohama and Oiwake in Pryer's collection, and my native collector obtained a specimen in the island of Kiushiu.

Hab. Japan and Kiushiu.

Macaria intersectaria, sp. n.

Very near to *M. temeraria*, Swinh., but the second and third transverse lines of primaries are not sinuous; the latter is double, enclosing a pale buff line, obtusely angled below costa, and has a small black mark, intersected by the venation, above the middle; between the first and second lines there is a dusky diffuse band, which is continued on the secondaries; the submarginal white line commences at apex and terminates just above inner angle; it is slightly incurved about the middle, and there is a whitish patch in this curve. On the secondaries the white submarginal line terminates just before anal angle; there is a dusky band on central area, tapering towards costa and marked with black dots on the neuration. Under surface very similar to that of *M. temeraria*, but the transverse lines are not wavy.

Expanse 40 millim.

One male specimen from Pu-tsu-fong, July.

Hab. Western China.

Macaria temeraria.

Macaria temeraria, Swinh. Trans. Ent. Soc. Lond. 1891, p. 492; Hampson, Fauna Brit. Ind., Moths, iii. p. 207 (1895).

I took specimens at Ning-po in April and at Nagasaki in June, and I have received the species from Chang-yang, where it was taken in July.

Distribution. Simla; Khásias; Nágas (*Hampson*); Kiushiu; Eastern and Central China.

Macaria ornataria, sp. n.

Pale brownish grey. Primaries have two interrupted dusky transverse lines before the middle, each originating in a brown spot on the costa; beyond the middle is a blackish fascia extending from costa to just below first median nervule, interrupted by the venation and separated by a line of the

ground-colour from a similarly interrupted blackish patch on its lower outer edge; between this fascia and the apex of the wing there is a brown spot on the costa. Secondaries have a dusky oblique line, which appears to be a continuation of the second one of primaries; beyond the blackish discal dot there is a blackish patch, interrupted by the median nervules and transversely by a slightly wavy line, which is dusky above and below the patch, but appears to be of the ground-colour in passing through it. Fringes pale at their base, darker outwardly, and preceded by a dusky lunulated line. Under surface fuscous, variegated with silvery white and suffused with ferruginous on apical area of primaries and sub-marginal area of secondaries; the basal area of each wing is also irrorated with silvery white.

Expanse 28 millim.

Two male specimens and two females from Moupin, July.

Hab. Western China.

Genus OPISTHOGRAPTIS.

(Hübner; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 102 (part.).)

Opisthograptis semilutata.

Eubolia semilutata, Led. Sib. Schmett. p. 29, pl. vi. fig. 3.

Opisthograptis semilutata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 103.

Charodes dictynna, Butl. Ill. Typ. Lep. Het. ii. p. 45, pl. xxxv. fig. 7 (1878).

Synegia? Fentoni, Butl. Trans. Ent. Soc. Lond. 1881, p. 412.

Occurs throughout Japan, and I met with it at Gensan and at Ningpo. I have also received it from Chang-yang.

Distribution. Siberia; Japan; Yesso; Kiushiu; Corea; Central China.

This species is exceedingly variable in colour, which ranges from bright ochreous through brownish grey to bright reddish brown; the markings, however, are fairly constant.

Opisthograptis corearia.

Halia corearia, Leech, Entom., Suppl. p. 50 (May 1891).

I took two male specimens and one female in June and one example of each sex in July at Gensan. I have also two males from Ichang. One of the male specimens from Gensan is of a uniform brown colour on the upper surface, except towards apex, where the ochreous yellow of the type form is exhibited.

Distribution. Corea; Central China.

Genus STRENIA.

(Dup. Lép. i. p. 112.)

*Strenia clathrata.**Phal. Geometra clathrata*, Linn. Syst. Nat. x. p. 524; Clerck, Icon. pl. ii. fig. 11.*Geometra clathraria*, Hübn. Geom. fig. 132.*Chiasmia clathrata*, Hübn. Verz. Schmett. p. 295.*Strenia clathrata*, Dup. Lép. viii. pl. ccvii. fig. 1; Guen. Phal. ii. p. 112.*Opisthograptis clathrata*, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 103.

I captured specimens at Hakodate, June and July, and at Nemoro in August; there were also a few examples in Pryer's collection from Yesso.

Distribution. Europe; Armenia; Altai; Amur; Japan; Yesso.

Genus TEPHRINA.

(Dup. Cat. Lép. Eur. p. 246 (1844); Hampson, Fauna Brit. Ind., Moths, iii. p. 219 (1895).)

Tephрина verecundaria, sp. n.

Brownish grey, with a slight violet tinge, irrorated with fuscous. Basal area of primaries rather darker, limited by a fuscous line, which is slightly angulated below costa; discal spot black; transverse line beyond the middle dark brown, curved below costa; the space between this line and the dusky waved submarginal line, which is only distinct towards costa, is filled in with darker. Secondaries have a black discal spot and dark brown central line, the latter bordered outwardly with darker. Fringes of the ground-colour, preceded on the primaries by a black dotted line and on secondaries by a series of black lunules. Under surface whitly brown, mottled with fuscous on basal two thirds of primaries and half of secondaries, and ochreous yellow on outer marginal area; the latter is limited by a fuscous line and traversed by a diffuse fuscous band; discal spot black on all the wings.

Expanse 29 millim.

Two female specimens from Chow-pin-sa, May and June.

This species superficially resembles *Macaria hebesata*, Walk., except that the transverse lines are not angulated.

Hab. Western China.

*Tephрина arenaccaria.**Geometra arenaccaria*, Hübn. Geom. fig. 114.*Tephрина arenaccaria*, Guen. Phal. ii. p. 105.

Eubolia flavidaria, Eversm. Bull. Mosc. 1852, p. 162.

Tephрина flavidaria, Guen. Phal. ii. p. 104.

Diastictis arenacearia, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 103.

There were specimens of the typical form in Pryer's collection, and I took examples of the *flavidaria* form at Gensan in July.

Distribution. Europe; Amur; Corea; Japan.

Tephрина capulata.

Lozogramma capulata, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 441 (1879).

There was a series from Yokohama and Oiwake in Pryer's collection, and I obtained specimens in Satsuma in May.

Hab. Japan; Kiushiu.

Tephрина brunneata.

Geometra brunneata, Thnb. Diss. Ent. i. p. 9 (1784).

Geometra pinetaria, Hüb. Geom. fig. 130, ♀ (post 1797).

Fidonia pinetaria, Guen. Phal. ii. p. 157.

Diastictis brunneata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 103.

There were specimens from Oiwake in Pryer's collection.

Distribution. Europe; Altai; Amur; Japan.

Tephрина fuscaria.

Halia fuscaria, Leech, Entom., Suppl. p. 50 (May 1891).

Three specimens of each sex, from Oiwake and Yokohama, in Pryer's collection. One female from Ichang, August.

Distribution. Japan; Central China.

Tephрина adzearia.

Halia adzearia, Oberth. Etud. d'Entom. xviii. p. 33, pl. iv. fig. 62 (1893).

I received one male specimen from Moupin, taken in June, and a female from Che-tou, taken in July.

Oberthür records the species from Ta-chien-lu.

Hab. Western China.

Tephрина (?) flavescens.

‡ *Eubolia flavescens*, Alph. Rom. sur Léop. vi. p. 68, pl. iii. fig. 6, ♂ (1892).

Alphéraky records one example of each sex, taken in September at Termine-Bachine, North-western China.

Genus HYPOSIDRA.

(Guen.; Hampson, Fauna Brit. Ind., Moths, iii. p. 212 (1895).)

Hyposidra aquilaria.*Lagyra aquilaria*, Walk. Cat. Lep. Het. xxvi. p. 1485.*Hyposidra aquilaria*, Hampson, Fauna Brit. Ind., Moths, iii. p. 214 (1895).*Hyposidra Davidaria*, Pouj. Ann. Soc. Ent. Fr. 1895, p. 307, pl. vi. fig. 1.

I have specimens from Chang-yang, Ichang, Chia-ting-fu, Moupin, Omei-shan: June and July.

Distribution. Sikhim; Shillong; N. China (*Hampson*); Central and Western China.[I received a series of *Hyposidra talaca*, Walk., from the Loo-choo Islands.]*Hyposidra falcigera*.*Lagyra falcigera*, Butl. Ill. Typ. Lep. Het. ii. p. 45, pl. xxxv. fig. 4 (1878).Three female specimens in Pryer's collection from Yesso.
Hab. Yesso.

Genus POGONITIS.

(Christoph. Bull. Mosc. iv. p. 60 (1881).)

Pogonitis cumulata.*Pogonitis cumulata*, Christ. Bull. Mosc. iv. 2, p. 61 (1881).*Deilinia cumulata*, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 110.

A fine series from Oiwake in Pryer's collection.

Distribution. Amur; Japan.

Genus DILINIA.

(Hübner; Hampson, Fauna Brit. Ind., Moths, iii. p. 216 (1895).)

Dilinia exanthemata.*Phalena exanthemata*, Scop. Ent. Carn. p. 218.*Geometra exanthemaria*, Esp. v. pl. xxxiii. figs. 3, 4.*Deilinia exanthemata*, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 110.*Cabera exanthemaria*, Guen. Phal. ii. p. 55.

I took one typical female specimen at Hakodate in August.

Alphéraky (Rom. sur Léop. vi. p. 56) records a very damaged female specimen from Ou-pin, Western China; possibly this is referable to the Chinese form of *D. Schafferi*, which I have described as var. *sinicaria*.*Distribution*. Europe; Armenia; Amur; Yesso.

Dilinia Schæfferi.

Cabera Schæfferi, Brem. Lep. Ost-Sib. p. 80, pl. vii. fig. 4 (1864).

I obtained specimens at Gensan in June.

This species can be readily separated from its allies by the distinct yellow bands, which are not in the least serrated.

Var. *sinicaria.*

Pale ochreous white, irrorated with brownish. Primaries have three rather broad, wavy, ochreous transverse lines, the first two elbowed below costa, and the third angled. Secondaries have two wavy ochreous lines. Fringes of the ground-colour. Under surface paler than above; all the wings have a dusky discal dot and indications of a transverse line beyond.

Expanse 36 millim.

A good series received from Ta-chien-lu and Ni-tou, June.

Distribution. Amur; Corea; Western China.

Dilinia purus.

Thysanochilus purus, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 404 (1878); Ill. Typ. Lep. Het. iii. p. 44, pl. li. fig. 12 (1879).

There was a good series from Yokohama in Pryer's collection. I took the species at Gensan and Mr. Smith at Hakone in June.

Distribution. Corea; Japan.

Dilinia conspersaria, sp. n.

White. All the wings have black discal and marginal spots. Primaries have three, and secondaries two, brownish macular bands. Under surface white, with black discal and marginal spots and a brownish macular submarginal band; the costal area of primaries is suffused with fuscous, especially towards the base.

Expanse, ♂ 38, ♀ 43 millim.

Two male specimens and six females from Oiwake in Pryer's collection.

The species varies in the intensity of the markings.

Hab. Japan.

Dilinia tinagmaria.

Cabera tinagmaria, Guen. Phal. ii. p. 56 (1857).

A number of specimens were received from Omei-shan and Moupin and one example from Chia-ting-fu, July. I took

the species at Ningpo in April and at Tsuruga in July; my native collector met with it in June and July at Ningpo, and also obtained specimens in the island of Kiushiu. Guenée's type was from North China. Pryer does not seem to have met with this species.

Distribution. North and Western China; Japan; Kiushiu.

Dilinia griseo-limbata.

Phasiane griseo-limbata, Oberth. Diagn. Lép. Ask. p. 1 (Aug. 1879);

Etud. d'Entom. v. p. 50, pl. iv. fig. 14 (1880).

Nematocampa straminea, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 370 (Sept. 1879).

Stegania griseo-limbata, Hedem. Horæ Soc. Ent. Ross. xvi. p. 245, pl. x. fig. 2 (1881).

Stegania ustulataria, Christ. Bull. Mosc. lv. (2) p. 63 (1881).

Deilinia straminea, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 110.

There were specimens from Yokohama and Oiwake in Pryer's collection. I obtained the species at Hakodate in August.

Distribution. Askold; Amur; Japan; Yesso.

Dilinia capitata.

Pachydia capitata, Walk. Cat. Lep. Het. xxiii. p. 1019 (1861).

Tacparia? morosa, Butl. Trans. Ent. Soc. 1881, p. 403.

Dilinia capitata, Hampson, Fauna Brit. Ind., Moths, iii. p. 217 (1895).

There were two specimens in Pryer's collection, and I received one from Mr. Manley taken at Yokohama.

Distribution. Throughout India and Ceylon (*Hampson*); Japan.

Dilinia fasciata.

Bargosa fasciata, Moore, Proc. Zool. Soc. Lond. 1867, p. 634, pl. xxxii. fig. 8.

Bargosa rivulosa, Butl. Trans. Ent. Soc. Lond. 1881, p. 410.

Dilinia fasciata, Hampson, Fauna Brit. Ind., Moths, iii. p. 217 (1895).

Butler's type was from Tokio. I did not obtain this species in Japan, and there were no specimens of it in Pryer's collection.

Distribution. Sikhim; Khásis; Japan (*Hampson*).

Dilinia rufofasciaria, sp. n.

Primaries pale ochreous brown; basal area tinged and clouded with rufous; before the black discal dot there is an obscure curved and recurved rufous transverse line, and beyond the dot a diffuse rufous transverse band, becoming obsolete towards costa and reduced towards inner margin;

on the outer margin there is a series of faint brownish spots. Secondaries ochreous brown; outer margin bordered with paler, the inner edge of the border wavy; discal dot black. Under surface pale ochreous brown; primaries have a dusky band beyond the middle.

Expanse 32 millim.

One male specimen from Chang-yang, July.

Hab. Central China.

Dilinia albifrontaria.

Phasiane albifrontaria, Leech, Entom., Suppl. p. 49 (May 1891).

Several specimens from Gifu in Pryer's collection.

Hab. Japan.

Allied to *D. vexillaria*, Guen.

Genus TYCOONIA.

(Warren, Novit. Zool. i. p. 439 (1894).)

Tycoonina obliqua.

Tycoonina obliqua, Warren, Novit. Zool. i. p. 439.

I have not been able to see the type of this species.

Hab. Japan.

Genus HYPEPHYRA.

(Butler, Ill. Typ. Lep. Het. vii. p. 101 (1889).)

Hypephyra terrosa.

Hypephyra terrosa, Butl. Ill. Typ. Lep. Het. vii. p. 100, pl. cxxxv fig. 17 (1889).

Five male specimens were received from Chang-yang, one female from Omei-shan, one male from Yokohama and one from the island of Kiushiu.

Distribution. Simla; Dharmsala (*Hampson*); Japan; Kiushiu; Western and Central China.

Hypephyra Pryeraria.

Tacparia Pryeraria, Leech, Entom., Suppl. p. 56 (May 1891).

Three male specimens and two females from Gifu in Pryer's collection.

Hab. Japan.

Genus CROCOTA.

(Hübner; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 118; (part)
Hampson, Fauna Brit. Ind., Moths, iii. p. 220 (1895).)

Crocota mundataria.

Phal. Geometra mundataria, Cram. Pap. Exot. iv. p. 243, pl. cccc. fig. H.

Geometra mundataria, Hübner. Geom. figs. 375, 538.

Aspilates mundataria, Guen. Phal. ii. p. 186; Alph. Rom. sur Lép. vi. p. 70 (1892).

Aspilates tonghata, Feld. Reise Nov., Lep. v. pl. cxxix. fig. 12.

Crocota mundataria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 119.

There were specimens from Fujisan in Pryer's collection, and I obtained the species at Oiwake in June and July and at Gensan in June. Specimens have been received from Chang-yang and Kiukiang, taken in June; Alphéraky notes the species from the ITEL-got, a tributary of the Yellow River, N.W. China, taken in August.

Distribution. Europe; Altai; Armenia; Siberia; Amur; Corea; Japan; Central and North-western China.

Crocota formosaria.

Aspilates formosaria, Eversm. Bull. Mosc. 1837, p. 54, 1844, iii. pl. xv. figs. 3 a, b; Guen. Phal. ii. p. 185.

Crocota formosaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 119.

Aspilates gloriosaria, Boisd. Ind. Gen. p. 188.

Some examples from Oiwake and Yokohama in Pryer's collection. I obtained specimens at Fusan in June and at Gensan and Nagahama in July; and my native collector took the species at Hakodate in June. One specimen was received from Chang-yang.

Distribution. Europe; Amur; Corea; Japan; Yesso; Central China.

Crocota curvaria.

Aspilates curvaria, Evers. Bull. Mosc. 1852, i. p. 167; Alph. Rom. sur Lép. vi. p. 70, pl. iii. figs. 5 a, b, c, ♂ ♀ (1892).

One female is recorded by Alphéraky from the province of Chan-si, taken in June.

Distribution. Siberia; North-west China.

Crocota sordida.

Cleogene sordida, Butl. Trans. Ent. Soc. Lond. 1881, p. 418.

Butler describes this species from Tokio.

Hab. Japan.

Crocota (?) *punctaria*, sp. n.

Pale ochreous brown, irrorated and mottled with dark greyish brown; there is a fuscous discal spot and a transverse series of fuscous spots placed on the inner edge of a dusky band on outer marginal area. Secondaries whitish brown, with a blackish discal spot and a transverse series of blackish spots beyond the middle, the third and fifth larger than the others. Fringes greyish. Under surface as above, but the primaries are suffused with fuscous and the secondaries are irrorated with fuscous and tinged with ochreous on the costa and outer margins.

Expanse 50 millim.

One male specimen from How-kow, July.

Hab. Thibet.

Crocota (?) *geholaria*.

Aspilates geholaria, Oberth. Etud. d'Entom. vi. p. 18, pl. ix. fig. 3 (1881).

I am unacquainted with this species, but, judging from the figure, which represents a female, it does not appear to be rightly placed in *Aspilates*, Treit., = *Crocota*, Hübn.

Oberthür records it from the Géhol Mountains and also from the mountains to the north of Pekin.

Genus DISCOREBA.

(Butler, Ann. & Mag. Nat. Hist. (5) i. p. 394 (1878).)

Discoreba simplex.

Discoreba simplex, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 394 (1878); Ill. Typ. Lep. Het. iii. p. 30, pl. xlvi. fig. 4 (1879).

Aspilates violentaria, Christ. Bull. Mosc. lv. (2) p. 82 (1881).

There were specimens of the typical form from Yokohama and Gifu in Pryer's collection.

Var. *punctaria*.

In both sexes of this form the transverse band of primaries is replaced by an oblique series of dots on the neuration. The ground-colour of the male is browner, and the primaries of the female are thickly dusted with blackish.

There were examples of this form in Pryer's collection, one of which was from Gifu.

Distribution. Japan; Amur.

Genus HYBERNIA.

(Latr. ; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 120.)

Hybernia leucophæaria.*Geometra leucophæaria*, Schiff. Wien. Verz. p. 101; Hübn. Geom. fig. 195.*Hybernia leucophæaria*, Dup. Léop. vii. pl. 156. figs. 4, 5; Guen. Phal. ii. p. 251.*Hybernia dira*, Butl. Ill. Typ. Lep. Het. iii. p. 50, pl. liii. fig. 7 (1879).

Several specimens from Yokohama in Pryer's collection.

Dira, Butl., is an unusually large specimen of *H. leucophæaria*. I have but one example in my series of the species which equals the type of *dira* in expanse, although several agree with the said type in other characters. The large specimen referred to was in Pryer's collection, and there was also a specimen which hardly expands one inch in the same collection.

The specimens from Japan exhibit considerable variation, but only one of the forms is peculiar; and as I have not seen an exact counterpart of it from Europe, I append the following description:—

Var. *nigrilinearia*.

Primaries pale ochreous grey; second line deeply indented below the middle; space between this line and the curved basal line thickly sprinkled with black scales, forming a dark median fascia, in the central portion of which is placed a pale oval patch; median nervure conspicuously black; before the apex is a blackish, oblique, abbreviated fascia. Secondaries normal.

Distribution. Europe; Japan.

Hybernia bela.

Lozogramma bela, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 406 (1878); Ill. Typ. Lep. Het. iii. p. 46, pl. lii. fig. 5 (1879).

Several male specimens from Yokohama in Pryer's collection.

Pryer, referring to this species in his 'Catalogue of the Lepidoptera of Japan,' p. 73, says "the female is semiapterous, like *Hybernia progemmaria*."

Hab. Japan.

Hybernia verecundaria, sp. n.

White, finely irrorated with fuscous, especially on pri-

maries. There are three transverse blackish lines on primaries—the first is slightly curved, the second serrated and curved to just above inner margin, where it is obtusely angled, the third is interrupted and merges into the dusky submarginal line at fourth vein; there is a blackish transverse dash on costa just beyond the first line and a dusky dot below it at the origin of second vein. Secondaries have a blackish transverse wavy line just beyond the middle; this does not extend to the costa, and on the inner margin is preceded by one and followed by two blackish marks. Fringes of the ground-colour preceded by blackish dots. Under surface whitish, suffused with fuscous, especially on the primaries; all the wings have a dusky discal mark, and the transverse lines of upper surface are faintly indicated.

Expanse 42 millim.

One male specimen in Pryer's collection.

Hab. Japan.

Genus APOCHEIMA.

(Hübner; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 121.)

Apocheima lefuaria.

Biston lefuarius, Erschoff, Horæ Soc. Ent. Ross. viii. p. 317 (1872);

Hedem. xvi. p. 246, pl. xiii. fig. 13 (1881).

Nyssiodes olgaria, Oberth. Etud. d'Entom. v. p. 44, pl. iv. fig. 12 (1880).

Ereuxa maturaria, Christ. teste Hedem. Horæ Soc. Ent. Ross. xvi. p. 247.

Eremia maturaria, Christ. Bull. Mosc. Iv. (2) p. 64 (1881); Stett. ent. Zeit. liv. p. 35 (1893).

Apocheima lefuaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 121.

There were some nice specimens from Yokohama in Pryer's collection. Mr. Andrews and my native collector took examples at Hakodate in June, and I received a male specimen from Chung-king.

Distribution. Amur; Askold; Japan; Yesso; Western China.

Genus PHIGALIA.

(Duponchel, Lép. iv. p. 296.)

Phigalia sinuosaria, sp. n.

Resembles *P. pedaria* from Europe, but the transverse markings of primaries are more wavy, the subbasal being angled below the middle and the submarginal nearer the margin of the wing; the central line of secondaries is serrated and always beyond the discal spot, and the outer line is evenly

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curved. Larger than *P. pedaria*, and the thorax is far less robust.

Expanse 48–58 millim.

Four male specimens from Yokohama in Pryer's collection.

Hab. Japan.

Genus ZAMACRA.

(Meyrick, Trans. Ent. Soc. Lond. 1892, p. 121.)

Zamacra albofasciaria.

Apocheima albofasciaria, Leech, Entom., Suppl. p. 48 (May 1891).

Three male specimens from Yokohama in Pryer's collection.

Hab. Japan.

The genus *Zamacra* was founded by Meyrick (Trans. Ent. Soc. Lond. 1892, p. 121) for *flabellaria*, Heeg., previously placed in *Apocheima*, Hübn.

Genus BISTON.

(Leach; Hampson, Fauna Brit. Ind., Moths, iii. p. 245 (1895).)

Biston emarginaria, sp. n. (Pl. VII. fig. 8.)

Outer margins of all the wings with two deep indentations.

Female.—Primaries white, sparingly freckled with black; the basal area limited by an angulated black line and clouded with brown; outer marginal area brown, limited inwardly by a sinuous black line and intersected by an indistinct dusky-bordered whitish line, which terminates in a whitish patch at inner angle. Secondaries have the basal two-thirds sparingly freckled with black; the outer third is brown, bounded inwardly by a rather wavy black line and containing two white patches; the lower, placed at anal angle, is marked with black. Under surface similar to upperside, but there is no brown on basal area of primaries. Fringes: of primaries blackish from costa to second indentation, thence white chequered with black; of secondaries white, marked with brown at the angle. Antennæ white marked with black, simple. Head and thorax creamy, the latter sprinkled with black. Abdomen pale brown, marked with white and dotted with black.

Expanse 65 millim.

One female specimen from Pu-tsu-fong, June.

Hab. Western China.

Biston robustum.

Biston robustum, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 371 (1879).

A very fine series from Yokohama in Pryer's collection.

In one example of the male the ground-colour is decidedly greyish.

Var. *parva*, nov.

Much smaller than the type; the inner line of primaries is less acutely angled below costa, and the outer line rather more sharply angled. The male has the pectination of antennæ shorter, and is without brown or ochreous in the composition of its colouring and agrees almost exactly with the female, which is typical except as regards the minor points of difference referred to.

Expanse, ♂ 56, ♀ 64 millim.

One male specimen from Pu-tsu-fong, one female from Che-tou, and another from Ta-chien-lu: July.

Distribution. Japan; Western China.

Biston regalis.

Amphidasys regalis, Moore, Lep. Atk. p. 234 (1887).

Biston regalis, Hampson, Fauna Brit. Ind., Moths, iii. p. 245 (1895).

One male specimen from Ichang taken in June.

There is an example from Hakodate in the National Collection, and this, like the specimen from Central China referred to above, has the basal, medial, and apical areas whiter than in the Indian form.

Distribution. N.W. Himalayas; Khásis (*Hampson*); Yesso; Central China.

Biston tendinosaria.

Amphidasys tendinosaria, Brem. Lep. Ost-Sib. p. 73, pl. vi. fig. 17 (1864).

Phthonosema tendinosaria, Warr. Novit. Zool. i. p. 428 (1894).

There were specimens from Yokohama, Oiwake, Nikko, and Yesso in Pryer's collection.

I took the species at Gensan in June and at Fushiki in July, and it has also been obtained at Tokio.

Distribution. Amur; Corea; Japan; Yesso.

[*Biston fasciaria*, Motsch. Bull. Mosc. xxxix. p. 197.— I am unable to identify this species.]

Biston serratilinearia, sp. n.

Whitish brown, powdered with grey. Basal area of primaries rusty brown, bordered with darker; outer line black, serrated, followed by a diffuse rusty-brown band; sub-marginal line of the ground-colour; discal spot blackish, with

a dark brown cloud above it on the costa. Secondaries have a dusky transverse central shade (sometimes present also on the primaries), and beyond this there is a black serrated line followed by a band as on primaries; submarginal line of the ground-colour; discal spot blackish. Fringes concolorous with the wings, preceded by an interrupted line. Under surface whitish grey, a blackish discal spot and dark central line on each wing.

Expanse, ♂ 64-74, ♀ 83 millim.

One male specimen and two females from Moupin and a male from Omei-shan, July.

Hab. Western China.

Allied to *B. recursaria*, Walk., but distinguished by the form of the transverse lines, and also by the rusty-brown markings.

Biston recursaria.

Boarmia recursaria, Walk. Cat. Lep. Het. xxi. p. 374 (1860).

Amphidasys superans, Butl. Ill. Typ. Lep. Het. ii. p. 48, pl. xxxv. fig. 3 (1878).

Biston recursaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 246 (1895.)

Several specimens in Pryer's collection.

I captured examples at Nagasaki in May and at Shimonoseki in July. My collectors in Western China obtained one female specimen at Ta-chien-lu and another at Wa-shan, both in June.

Distribution. Sikhim; Khásis; Bassein; Burma; Java (*Hampson*); Japan; Kiushiu; Western China.

Biston invenustaria.

Amphidasys invenustaria, Leech, Entom., Suppl. p. 43 (May 1891).

Allied to *B. recursaria*, Walk.

Several specimens from Oiwake in Pryer's collection.

Var. *sinicaria*, nov.

Differs from the type in having the transverse lines blacker and the bands browner; between the second and submarginal lines there are some brownish clouds.

In one female specimen the black lines are absent.

My collectors obtained examples of this form at Wa-shan, Fu-tsu-fong, Ni-tou, Chia-ting-fu, Chia-kou-ho, Chang-yang.

Distribution. Japan; Central and Western China.

Biston suppressaria.

Amphidasys suppressaria, Guen. Phal. i. p. 210 (1857).

Buzura multipunctaria, Walk. Cat. Lep. Het. xxvi. p. 1531 (1862).

Buzura strigaria, Moore, Lep. Ceyl. iii. pl. clxxxviii. figs. 1, 1 a, b, c (larva) (1887).

Biston suppressaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 247 (1895).

Two male specimens and one female from Omei-shan, and one female from Wa-shan: June.

The female example from Omei-shan is more heavily powdered with black than the other specimens, and consequently looks much darker.

There is a specimen from Japan in the National Collection at South Kensington.

Distribution. Kángra; Sikhim; Assam; Calcutta; Ceylon; Japan (*Hampson*); Western China.

Biston tibetaria.

Amphidasys tibetaria, Oberth. Etud. d'Entom. xi. p. 32, pl. v. fig. 30 (1886).

Specimens have been received from Chang-yang, Ichang, Ta-chien-lu, Ni-tou, and Chia-ting-fu: June and July.

Oberthür's type was taken by M. Biet at Châpa.

Distribution. Central and Western China.

Genus MEGABISTON.

(Warren, Novit. Zool. i. p. 429 (1894).)

Megabiston plumosaria.

Biston plumosaria, Leech, Entom., Suppl. p. 43 (May 1891).

Megabiston plumosaria, Warren, Novit. Zool. i. p. 429 (1894).

There was a fine series from Yokohama in Pryer's collection.

Hab. Japan.

Genus MEGAMETOPON.

(Alphéraky, Rom. sur Léop. vi. p. 53 (1892).)

Megametopon piperatum.

Megametopon piperatum, Alph. Rom. sur Léop. vi. p. 53, pl. iii. fig. 3, ♂ (1892).

Alphéraky records this species from Tchin-Tassy, in the Province of Kan-sou: July.

Genus ELPHOS.

(Guen. Phal. i. p. 235 (1857).)

Elphos insueta.

Elphos insueta, Butl. Ill. Typ. Lep. Het. ii. p. 48, pl. xxxvi. fig. 2 (1878).

A few specimens from Ohoyama, Oiwake, and Fujisan in Pryer's collection.

Mr. Smith took one example at Hakone in August, and my collectors one at Moupin in July.

The Chinese specimen differs from Japanese examples in the much fainter colour of the yellow markings.

Distribution. Japan and Western China.

Genus XANDRAMES.

(Moore, Proc. Zool. Soc. Lond. 1867, p. 634.)

Xandrames sericea.

Xandrames sericea, Butl. Trans. Ent. Soc. 1881, p. 409.

Xandrames latiferaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 250 (1895).

Several specimens from Fujisan and Nikko, confounded with *X. latiferaria*, in Pryer's collection.

My native collector captured some specimens at Hakodate in June or July. I have also received the species from Chang-yang, Moupin, Chia-ting-fu, and Ta-chien-lu: June and July.

I cannot agree with Hampson in regarding *X. sericea*, Butl., as synonymous with *X. latiferaria*, Walk. The two insects appear to me to be very distinct, especially as regards the markings of secondaries. Hampson's figure represents *X. sericea*, and not *X. latiferaria*; the latter is well figured by Butler (Ill. Typ. Lep. Het. iii. pl. xlix. fig. 11).

Distribution. Japan; Yesso; Central and Western China.

Xandrames latiferaria.

Pachyodes? latiferaria, Walk. Cat. Lep. Het. xxi. p. 445 (1860).

Elphos latiferaria, Butl. Ill. Typ. Lep. Het. iii. p. 36, pl. xlix. fig. 11 (1879).

One male specimen from Oiwake in Pryer's collection.

I captured a male at Hakodate in August, and I have specimens from Omei-shan, where they were taken in July and August, and others from Kiukiang.

Distribution. Japan; Yesso; Central and Western China.

Xandrames xanthomelanaria.

Xandrames xanthomelanaria, Poug. Ann. Soc. Ent. Fr. 1895, p. 309, pl. vi. fig. 6.

Poujade records a male specimen from Moupin. I have an example of the same sex from Omei-shan, and one from Chia-kou-ho, taken in July.

Hab. Western China.

This species is allied to *X. sericea*, Butl., and *X. latiferaria*, Walk., most nearly perhaps to the former. It is, however, at once separated from either by the shape of the fascia on primaries and yellow border on secondaries.

Xandrames agitata.

Boarmia agitata, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 396 (1878);

Ill. Typ. Lep. Het. iii. p. 33, pl. xlviii. fig. 9 (1879).

Duliophyle agitata, Warren, Novit. Zool. i. p. 432 (1894).

Some specimens from Ohoyama and Nikko in Pryer's collection.

Mr. Smith took the species at Hakone in August, and there are specimens in the National Museum from Tokio, Yokohama, and Chiuzenji.

Hab. Japan.

Xandrames angustaria, sp. n.

Primaries ochreous, mottled and striated with dark brown; there is a fuliginous patch at the base; a subbasal band and a broad central fascia of the same colour, the latter interrupted in the middle and bordered outwardly on the costa by a patch of the ground-colour enclosing a dark irregular bar; submarginal line interrupted, preceded by some dark clouds below costa. Secondaries fuscous, finely striated with cupreous brown; there is a dusky discal dot and central line. Fringes of the ground-colour marked with fuliginous. Under surface fuscous, paler along costa of primaries; there is an irregular-shaped pale fascia beyond the middle of the wing enclosing a dark patch below costa; discal dot black.

Expanse 54 millim.

One specimen from Omei-shan, June.

Hab. Western China.

Genus GNOPHOS.

(Treitschke, Eur. Schmett. vi. p. 160 (1827).)

Gnophos muscosaria.

Gnophos muscosaria, Walk. Cat. Lep. Het. xxxv. p. 1596 (1866).

Gnophus muscosarius, Hampson, Fauna Brit. Ind., Moths, iii. p. 251 (1895).

One female specimen from Moupin taken in July.

Distribution. N.W. Himalayas; Sikhim (*Hampson*); Western China.

Gnophos approximaria, sp. n.

Greyish, powdered and marked with dark brown. Primaries have four transverse wavy lines and a transverse basal

shade: the first line is slightly indented below costa; the second is placed a little beyond the black discal spot and is closely followed by the third; this last is edged outwardly with whitish, and is nearer to the second on the inner margin than on the costa; the fourth (submarginal) is pale, preceded by a dark brown cloud towards costa and also towards inner margin. Secondaries have two wavy lines hardly traceable towards costa but terminating near together on the middle of abdominal margin; there is a short diffuse bar near anal angle. Fringes brownish, preceded by a black line. Under surface brownish grey; all the wings have a blackish discal spot and indistinct wavy central line.

Expanse, ♂ 50, ♀ 50-56 millim.

One male specimen and five females from Pu-tsu-fong, July.

As the male is not in good condition, I have described a female as the type; but the sexes do not appear to differ in markings.

Hab. Western China.

Gnophos pullata.

Gnophos pullata, Treit. Schm. vi. p. 179 (1827).

Pseudopanthera pullata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 117.

One male specimen, taken at How-kow in July, appears to be referable to this species.

The wings are dark grey, tinged with brownish as far as the second line on primaries and the central line on secondaries. The under surface is also darker. In some respects this specimen seems to agree with var. *confertata*, Staud. (Cat. p. 167) = var. *a*, Guen., from Styria.

Gnophos minutaria, sp. n.

Male.—Basal two-thirds of all the wings ochreous grey, irrorated with dark grey and limited by a serrated dark grey line which is followed by a whitish band; outer marginal area ochreous grey, clouded with dark grey and traversed by a whitish band; discal spot whitish, surrounded with dark grey. Fringes whitish grey, preceded by an interrupted black line. Under surface pale greyish; primaries suffused with fuscous, traversed by an ill-defined pale band; secondaries have a curved dusky band.

Female.—Similar to the male, but the dark grey clouding is less distinct.

Expanse, ♂ 24, ♀ 30 millim.

One male specimen from Pu-tsu-fong and one female from Moupin, July.

Hab. Western China.

Very similar to *G. variegata*, Dup., on upper surface, but on the underside there is no heavy black marking on the outer margins.

Gnophos lentiginosaria, sp. n.

Male.—All the wings white, heavily freckled and clouded with fuliginous grey. The primaries have a blackish patch on the costa extending to and enclosing the black discal spot; a smaller spot of the same colour lies between this patch and the base of the wing and a larger one beyond it, from which an interrupted narrow blackish band proceeds across the wing to the inner margin; just beyond this line is a large rather round blackish spot. Secondaries have a blackish discal spot. Fringes fuliginous grey, marked with white but hardly chequered, and preceded by a blackish line. Under surface of all the wings white; primaries are fuliginous grey on basal area, and a broad streak of the same colour extends to a break in the fuliginous-grey border of outer margin; the costa is narrowly ochreous and has three blackish spots on it, the second of these extends to the discal spot, and the third gives rise to a narrow blackish band, which crosses the wing almost to the submedian nervure: secondaries have the costa narrowly striated with dark grey, a blackish discal spot, and six or seven blackish spots forming a curved series from costa to inner margin. Antennæ simple. Head blackish. Thorax corresponds with the wings. Abdomen above greyish, marked with ochreous on the segmental divisions; entirely ochreous beneath; the legs also are greyish above and ochreous beneath.

Female.—Rather more ample in the wing, but colour and marking similar to the male.

Expanse 47–52 millim.

A nice series, comprising specimens from Ta-chien-lu, Pu-tsu-fong, Ni-tou, Moupin, and Omei-shan, the majority from the last-named locality: June and July.

Hab. Western China.

Gnophos accipitraria.

Gnophos accipitraria, Guen. Phal. i. p. 300 (1857).

Gnophus accipitrarius, Hampson, Fauna Brit. Ind., Moths, iii. p. 252 (1895).

One female specimen from Omei-shan and one from Moupin, May.

Distribution. N.W. Himalayas; Shillong; Sibságar, Assam (*Hampson*); Western China.

Gnophos lichenea.

Gnophos lichenea, Oberth. Etud. d'Entom. xi. p. 33, pl. v. fig. 33 (1886).

Gnophus licheneus, Hampson, Fauna Brit. Ind., Moths, iii. p. 253 (1895).

I have a long series, comprising both sexes, from Pu-tsu-fong, Moupin, Omei-shan, and Chang-yang: July.

Oberthür received the species from Tâ-t sien-Loû.

Distribution. Sikhim (Hampson); Western and Central China.

Gnophos theuropides.

Gnophos theuropides, Oberth. Etud. d'Entom. xv. p. 22, pl. iii. fig. 28 (1891).

Nine male specimens from Pu-tsu-fong and one example of the same sex from Moupin: June and July.

Oberthür records specimens from Tâ-t sien-Loû, captured by Mgr. Biet.

Hab. Western China.

Gnophos incolaria, sp. n.

Male.—Whitish grey. Basal half of primaries and the outer marginal area darker, the former traversed by an indistinct band of the paler ground-colour, in which there are some darker marks, and the latter intersected by a wavy line of the ground-colour; the whitish-grey area between these dark portions is clouded on the costa and inner margin, and is traversed by a wavy black line. Secondaries have the outer marginal area dark grey intersected by a paler wavy line and limited by a wavy black line; the remainder of the wing is sprinkled with dark grey scales; discal spots black. Fringes rather brownish grey. Under surface white, with black discal spots; basal area of primaries sprinkled with greyish, and the whole of the outer marginal area, except the apex, of primaries is dark grey; the secondaries have a dark grey submarginal band, and the lower two-thirds of the area beyond is sprinkled with dark-grey scales; fringes white, marked with brownish grey at the extremities of the nervules. Antennæ bipectinated.

Expanse 50 millim.

Two male specimens from Kwei-chow, June.

Hab. Western China.

Allied to *G. colaria*, Guen.

Gnophos colaria.

Gnophos colaria, Guen. Phal. i. p. 294.

Gnophus colarius, Hampson, Fauna Brit. Ind., Moths, iii. p. 253 (1895).

Two male specimens from Kwei-chow and one example of each sex from How-kow, July.

One of the examples from Kwei-chow is whitish grey, suffused with ochreous brown; the other is greyish, irrorated with pale brownish on the basal area of all the wings. The How-kow male is brownish grey, and the female is similar but more brownish on submarginal area.

Distribution. Himalayas; Punjaub; Khásis (*Hampson*); Western China; Thibet.

Gnophos mandarinaria, sp. n.

Whitish, striated and mottled with grey and tinged with ochreous on lower half of primaries and submarginal area of secondaries; a black discal spot on all the wings. The first line on primaries, which is slightly curved and rather wavy, commences as a spot on the costa and is marked with black on the nervures; the second line is serrated, slightly curved, and marked with black on the nervules; between these lines, but nearer the second, there is a dark fascia-like shade; submarginal line whitish, with a grey cloud before it at the costa, another just below, and a third on inner margin. Secondaries have a dark grey serrated central line, edged externally with whitish and preceded by a dusky shade; submarginal line as on primaries. Fringes grey, preceded by a series of black spots placed on a black line. Under surface of primaries brownish fuscous, paler on the margins, and of secondaries ashy; all the wings have a small discal spot and indications of a central line.

Expanse 44-50 millim.

Three male specimens from Wa-shan, Junc.

Hab. Western China.

This species is allied to *G. serotinaría*, Hübn. It varies in the intensity of the grey mottling.

Gnophos punctivenaria, sp. n.

Male.—Whitish, powdered with brownish grey. The first and second transverse lines on primaries are greyish, their course indicated by black dots on the nervures and nervules respectively; the second line is preceded and followed by an olive-brown band which together with the dotted transverse line give the appearance of a fascia; the submarginal line is pale but indistinct, and is preceded by some olive-brown cloud-like patches. Secondaries have a serrated black central line becoming indistinct towards costa, preceded by an olive-brown shade; beyond there is an inwardly olive-brown bordered pale submarginal line; all the wings have a black discal spot.

Fringes brownish grey, preceded by a series of black elongated spots. Under surface of primaries fuscous with paler margins, and of secondaries greyish; blackish discal spot on all the wings, and the second line of primaries is indicated on the nervules. Antennæ more than half the length of primaries, bipectinated.

Female.—Rather browner, and the submarginal line on all the wings appears more distinct.

Expanse, ♂ 52, ♀ 46 millim.

I have specimens from Moupin, Ta-chien-lu, Wa-shan, Pu-tsu-fong, and Che-tou, taken in May and June.

Hab. Western China.

This species is subject to variation in tint and in the definition of the markings. Some examples are greyer than the specimens I have selected as types, and in others the markings are somewhat confused, but the black dots on the neuration appear to be a constant character.

Gnophos lilliputata.

Gnophos lilliputata, Pouj. Ann. Soc. Ent. Fr. 1895, p. 303, pl. vi. figs. 7, 7 a.

One example of each sex recorded from Moupin by Poujade.

Hab. Western China.

Gnophos (?) *thibetaria*.

Gnophos thibetaria, Oberth. Etud. d'Entom. ix. p. 21, pl. i. fig. 3 (1884).

Oberthür refers to the type as a very fresh female specimen which was taken by Mgr. Biet at Tâ-t sien-Loû.

The figure of this species does not seem to exhibit the characters of a *Gnophos*.

Gnophos gnophosaria.

Psodos gnophosaria, Oberth. Etud. d'Entom. xviii. p. 28, pl. iii. fig. 45 (1893).

Judging from the figure, I should say that this species is referable to *Gnophos*, and appears to be a close ally of *G. obscuraria*, Hübn., if it is not really a form of that species, from which it only appears to differ in the more pronounced character of the transverse line on under surface of the wings.

Hab. Western China.

Gnophos (?) *creperaria*.

Gnophos creperaria, Ersch. Hor. Soc. Ent. Ross. xii. p. 337 (1876);

Hedem. op. cit. xvi. p. 247, pl. xiii. fig. 3 (1881).

Gnophos ? *creperaria*, Alph. Rom. sur Léop. vi. p. 63 (1892).

Alphéraky records a specimen, taken in September, at Youï-line-tchouan in the Province of Kan-sou, Western China, which he considers to be the female of *G. creperaria*, Ersch. Græser also records the species from Amurland.

Distribution. Siberia; Amur; Western China.

Gnophos fumosa.

Catascia fumosa, Warren, Novit. Zool. ii. p. 129 (1895).

Hab. Japan.

I have been unable to examine the type of this species.

Gnophos (?) exulta.

Tephrosia exulta, Butl. Trans. Ent. Soc. Lond. 1881, p. 408.

There were two female specimens from Yokohama and Oiwake in Pryer's collection. I have received two examples of each sex from Ta-chien-lu, and a female from Ni-tou: June and July.

Var. *brunnearia*, var. nov.

This form, of which I have only a male example from Omei-shan, differs from the type in its smaller size, pale brown ground-colour, and blackish blotch above outer angle of primaries; the indented marginal line of primaries is absent.

Distribution. Japan; Western China.

Genus BYLAZORA.

(Walk. Cat. Lep. Het. xxvi. p. 1549 (1862).)

Bylazora nigropunctaria, sp. n.

Primaries olive-green, marked with black at the base and on the neuration; there is a transverse line before the middle and one beyond the middle, each represented by black dots on the nervures and nervules, the dots in the first series are edged inwardly and those in the second series outwardly with whitish; submarginal line whitish, angled towards costa and curved towards inner margin, and followed by an interrupted and irregular black band; discal spot black, oval, enclosing a line of the ground-colour; fringes of the ground-colour, preceded by a series of whitish-edged black lunules. Secondaries whitish, freckled with fuscous grey; fringes brownish grey, preceded by a series of pale-edged blackish lunules. Under surface pale whitish brown, freckled with fuscous; all the wings have a blackish discal mark and a transverse series

of blackish dots beyond; primaries are suffused with fuscous on the disc, and have an interrupted blackish submarginal band.

Expanse 42 millim.

One female specimen from Pu-tsu-fong, June.

Hab. Western China.

Allied to *B. pilicostata*, Walk.

Genus OPTHALMODES.

(Guen. Phal. i. p. 283 (1857).)

Ophthalmodes ocellata.

Boarmia ocellata, Leech, Trans. Ent. Soc. Lond. 1889, p. 143, pl. ix. fig. 11.

Diastictis saturniaria, Græs.; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 104.

Seven fine specimens from Oiwake in Pryer's collection.

I received specimens from Kiukiang, Ichang, Chang-yang, Moupin, Omei-shan, Wa-shan, and the Province of Kwei-chow: May, June, and July. In the National Collection there is a specimen labelled from Ningpo.

The Japanese specimens are rather whiter in ground-colour than the Chinese.

Distribution. Japan; Central, Western, and North-eastern China.

Meyrick appears to consider *ocellata* to be synonymous with *saturniaria*, Græs., but from the description alone of the latter it is rather difficult to decide upon this point.

Ophthalmodes herbidaria.

Ophthalmodes herbidaria, Guen. Phal. i. p. 283 (1857); Moore, Lep. Ceyl. iii. p. 417, pl. cxc. fig. 4, ♀ (1887).

Ophthalmodes diurnaria, Guen. l. c. p. 284.

Boarmia pertusaria, Feld. Reise Nov. pl. cxxv. fig. 17, ♂ (1874).

I have specimens from Chang-yang, Omei-shan, and the Province of Kwei-chow: July.

Distribution. N.W. and E. Himalayas; Assam; Ceylon (*Hampson*); Central and Western China.

Ophthalmodes cordularia.

Ophthalmodes cordularia, Swinh. Ann. & Mag. Nat. Hist. (6) xii. p. 155 (1893); *Hampson*, Fauna Brit. Ind., Moths, iii. p. 256 (1895).

One specimen from the Province of Kwei-chow, taken in July. This agrees with *O. cordularia*, Swinh., but, except that it has black palpi, is almost identical with *O. herbidaria*, Guen.

Distribution. Sikhim; Khásis (*Hampson*); Western China.

Ophthalmodes senex.

Boarmia senex, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 396 (1878); Ill.

Typ. Lep. Het. iii. p. 34, pl. xlix. fig. 3 (1879).

Boarmia hedemanni, Christ. Bull. Mosc. Iv. (2) p. 79 (1881).

Diastictis senex, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 103.

Some nice specimens from Yokohama in Pryer's collection.

I captured the species at Gensan in July, and it was obtained by my collectors at Chang-yang and most of the localities in Western China that they visited.

The species seems to vary a good deal in size and also in the ground-colour, but this last may probably be due to condition.

Distribution. Amur; Corea; Japan; Central and Western China.

Ophthalmodes subpicaria, sp. n.

White, sparingly dusted with brownish, especially along the nervures and inner margins. Primaries have four equidistant brownish spots on costa; the fourth near apex and limiting, at that point, a broad greyish band on outer margin, which is interrupted about the middle, clouded with brownish above and below the interruption, and intersected by a whitish wavy line commencing in external edge of fourth costal spot, and terminating at inner angle. Secondaries have a dusky central spot, a curved series beyond, each spot placed on a nervule (a similar series of spots is present on primaries, but not so well defined); the outer margin is clouded with brownish towards both angles. Fringes brownish, faintly chequered with grey, and preceded by an interrupted black line. Under surface: primaries white, clouded with blackish on the costal portion of basal area and before apex; there is also a lesser cloud on the outer margin just above anal angle; discal spot black and conspicuous, showing through on upper surface; costa marked with black and dusky: secondaries have two black spots on costa, with some streaks of the same colour between them and towards the base of the wing; submarginal band blackish, interrupted about the middle and terminating before inner margin. Antennæ blackish; bipectinated in the male.

Expanse, ♂ 68, ♀ 72 millim.

One example of each sex from Omei-shan, and one male from Chang-yang: June.

Hab. Central and Western China.

Genus BUPALUS.

(Leach ; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 107.)

Bupalus mirandus.*Bupalus mirandus*, Butl. Trans. Ent. Soc. Lond. 1881, p. 599.

Butler's type from Yokohama is a male. The female is ferruginous brown in colour, and the white markings are not quite so broad as in the male.

There was an example of each sex in Pryer's collection.

Hab. Japan.

Bupalus (?) *davidaria*.

Fidonia davidaria, Oberth. Etud. d'Entom. vi. p. 18, pl. ix. fig. 4 (1881).

Oberthür's type is a female taken in the north of China by M. l'Abbé Armand David. I have not seen an example of the species.

Genus NARRAGA.

(Walk. ; Meyrick, Trans. Ent. Soc. Lond. 1892, p. 107.)

Narraga fasciolaria.

Fidonia fasciolaria, Rott. var., Alph. Rom. sur Lép. vi. p. 64 (1892).

Narraga fasciolaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 107.

Alphéraky records one female example of a form of this species from the Province of Chan-si, North-western China.

Distribution. Europe ; Altai ; Ural ; Amur ; North-western China.

Genus SELIDOSEMA.

(Hübner, Verz. Schmett. p. 299.)

Selidosema catoteniaria.

Selidosema catoteniaria, Pouj. Ann. Soc. Ent. Fr. 1895, p. 313, pl. vii. figs. 15, 15 a.

Poujade's type was from Moupin ; I received specimens from that locality and also from Ta-chien-lu and Chang-yang, taken in June.

Var. *restrictaria*.

In this form the patches do not extend to the margins and the band on the secondaries is considerably restricted in width.

A male specimen from Wa-shan and a female from Chang-yang, June.

Hab. Central and Western China.

Selidosema sordida.

Selidosema sordida, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 406 (1878);
Ill. Typ. Lep. Het. iii. p. 46, pl. lii. fig. 7 (1879).

A fine series from Ohoyama, Nikko, and Oiwake in Pryer's collection. My native collector obtained the species at Hakodate in June.

Hab. Japan and Yesso.

Genus TEPHROSIA.

(Boisd. Ind. p. 198 (1840).)

Tephrosia luridata.

Geometra luridata, Bork. v. p. 235 (1794); Zell. Stett. ent. Zeit. 1853, p. 414.

Geometra extersaria, Hübn. Geom. fig. 159 (post 1797).

Tephrosia extersaria, Boisd. Ind. p. 198 (1829).

Ectropis luridata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 104.

There were a few specimens from Oiwake in Pryer's collection.

My native collector took the species at Hakodate in June.

Japanese specimens are rather smaller than European examples; they are also more thickly powdered with brownish, and the pale spot on outer marginal area of primaries is of less size.

Distribution. Europe; Amur; Japan.

Tephrosia costipunctaria.

Tephrosia costipunctaria, Leech, Entom., Suppl. p. 47 (May 1891).

There were three specimens of each sex from Oiwake in Pryer's collection.

Allied to *T. luridata* and also to *T. punctularia* from Europe, but it is not likely to be confused with either of those species.

Hab. Japan.

Tephrosia biundularia.

Geometra biundularia, Bork. Eur. Schmett. v. p. 162 (1794).

Geometra crepuscularia, Hübn. Geom. pl. xxx. fig. 158.

Tephrosia crepuscularia, Guen. Phal. i. p. 268.

Ectropis biundularia, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 104.

Boarmia crepuscularia, Hampson, Fauna Brit. Ind., Moths, iii. p. 260 (1895).

Boarmia nikkonis, Butl. Trans. Ent. Soc. Lond. 1881, p. 406.

Tephrosia excellens, Butl. Ann. & Mag. Nat. Hist. (5) xiii. p. 275 (1884).

There were several specimens from Nikko and Yesso in Pryer's collection. I took the species at Ningpo in April;

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at Nagasaki and in Satsuma in May; at Nagasaki, Tsuruga, and Gensan in July; at Hakodate in August. My native collector met with it in the island of Kiushiu.

I have also received a number of specimens from the various localities visited by my collectors in Central and Western China.

This species varies considerably in size both in China and Japan. The smallest specimen is only 26 millim. in expanse, whilst the largest measures 58 millim.

Nikkonis, Butl., is a strongly-marked example of the type form, and although rather larger is not otherwise different in any material respect from specimens I have seen from Scotland.

Excellens, Butl., is an unusually large form of the species; I have examples of it from Japan and Yesso.

Distribution. Europe; Amur; Corea; Japan; Central and Western China. N.W. Himalayas; Sikhim and Khásis (*Hampson*).

Tephrosia grisescens.

Ectropis grisescens, Warren, Novit. Zool. i. p. 434 (1894).

Probably a form of *T. biundularia*.

The types are from China and Japan.

Tephrosia pongaria.

Tephrosia pongaria, Oberth. Etud. d'Entom. xviii. p. 27, pl. iv. fig. 53 (1893).

Recorded by Oberthür from Tâ-t sien-Loû (Ta-chien-lu).

I received two specimens from Moupin, where they were captured in June.

Hab. Western China.

Tephrosia punctularia.

Geometra punctulata, Hübn. Geom. fig. 317.

Boarmia punctulata, Dup. vii. pl. clxiii. fig. 5.

Tephrosia punctulata, Guen. Phal. i. p. 269.

Ectropis punctularia, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 104.

Tephrosia ignobilis, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 397 (1878);

Ill. Typ. Lep. Het. iii. p. 35, pl. xlix. fig. 6 (1879).

There were specimens from Gifu and Yesso in Pryer's collection.

I obtained the species at Ningpo in April, and at Yokohama and Nagahama in June.

T. ignobilis, Butl., cannot be specifically separated from *T. punctularia*. The figure given in 'Illustrations' is not good.

Distribution. Europe; Siberia; Amur; Japan; Yesso; North-eastern China.

Tephrosia pygmaearia, sp. n.

Whitish, striated with yellow on outer half of all the wings. Primaries clouded with blackish on basal area; subbasal band represented by an upright blackish dash on inner margin, a cloud on costa; beyond the black discal spot there is a curved and recurved blackish band, followed by a curved series of blackish dots, which coalesce with the band towards inner margin; submarginal band blackish, twice interrupted and separated from an interrupted marginal band by a transverse line of the ground-colour. Secondaries clouded and spotted with blackish on basal area; submarginal and marginal bands as on primaries. Fringes yellow chequered with black. Under surface similar to above.

Expanse 20-24 millim.

Two male specimens from Chang-yang, June and July.

Hab. Central China.

Tephrosia brunnearia, sp. n.

Male.—Grey-brown, powdered with dark brown. Transverse lines of primaries dark brown and rather wavy; the inner is slightly elbowed below costa and thence oblique to inner margin; the outer is elbowed below costa and thence oblique to just above the inner margin, where it is slightly angled; between these lines there is a curved black discal spot and a dusky central line, the upper portion of the latter touches the extremities of the curved spot, forming together an annulated mark; beyond the second line the wing is clouded with dark brown and traversed by a whitish line. Secondaries have a slightly curved wavy brown outer line and an oblique brown band between it and the base of the wing; the area beyond the outer line is clouded with brown and intersected by a whitish line. Fringes agree in colour with the wings, but are rather darker at the ends of the nervules. Under surface ochreous, slightly powdered with brown scales, whitish along inner margin of primaries; lines brown as above, but faint; discal spot of primaries large, blackish; some dusky clouds on the outer marginal area of the wing. Antennæ finely ciliated.

Female less powdered with dark brown; transverse lines more distinct.

Expanse, ♂ 34, ♀ 32 millim.

A long series from Ichang and Chang-yang: June, July, and August. One male specimen from Moupin and one from Omei-shan, July.

Hab. Central and Western China.

Tephrosia noctivolens.

Tephrosia noctivolens, Butl. Trans. Ent. Soc. 1881, p. 598.

A fine series in Pryer's collection. The specimens are from Oiwake and Gifu, but chiefly from the former locality. Fenton obtained it at Tokio.

Hab. Japan.

Tephrosia (?) tindzinaria.

Tephrosia tindzinaria, Oberth. Etud. d'Entom. xviii. p. 26, pl. v. fig. 75 (1893).

Recorded by Oberthür from Tâ-t sien-Loû (Ta-chien-lu).

My collectors did not obtain this species, which, judging from the figure, is probably referable to *Cidaria*.

Hab. Western China.

Tephrosia (?) tamarina.

Tephrosia tamarina, Oberth. Etud. d'Entom. xviii. p. 26, pl. v. fig. 78 (1893).

Oberthür describes this species from specimens received by him from Tâ-t sien-Loû (Ta-chien-lu).

I have not seen an example, but from the figure I should consider that it is probably referable to *Cidaria*.

Hab. Western China.

Genus BOARMIA.

(Treitschke, Eur. Schmett. v. p. 433 (1825).)

Boarmia farracearia, sp. n.

Slaty grey, mottled and powdered with whitish; the most conspicuous of these pale marks on the primaries are a large patch on the costa enclosing the discal spot, one at apex, and a third about the middle of the outer margin; all these markings are more or less powdered with grey; there are three dark transverse lines or bands, but these are not well defined; submarginal line white and sharply serrated. Secondaries have two indistinct blackish transverse bands and a black discal spot; submarginal line as on primaries. Fringes white and dark grey, spotted with black at their base. Under surface whitish: primaries have the costa dusky and a deep blackish band on outer margin, spotted with whitish at apex and on the middle; secondaries have a broad blackish antemarginal band; all the wings have a black discal spot and central line.

Expanse 42-46 millim.

Five female specimens and one male from Wa-shan, Tachien-lu, Chow-pin-sa, and Chia-ting-fu; and one example of each sex from Moupin: June and July.

These eight specimens exhibit a good deal of variation in the amount of white: one example might be described as having the primaries whitish, with dark grey basal patch and broad submarginal band; this specimen, however, is rather worn. In two others the primaries are shorter and the outer margin rounder than in the type.

Var. fuliginaria.

Entirely suffused with fuliginous; submarginal line pale and conspicuous.

One male specimen from Ichang, June.

Hab. Central and Western China.

Boarmia duplexa.

Cleora duplexa, Moore, Lep. Atk. p. 239 (1887).

Boarmia duplex, Hampson, Fauna Brit. Ind., Moths, iii. p. 258 (1895).

One male specimen from Pu-tsu-fong, and a female from Omei-shan: July.

Distribution. Nepal; Sikhim (*Hampson*); Western China.

Boarmia nigrilinearia, sp. n.

Primaries ochreous grey, tinged with violaceous and irrorated with blackish; first line black, curved, preceded by a transverse blackish shade; second line black, sinuous, followed by a cupreous band-like shade; submarginal line blackish, wavy, most distinct towards costa; discal dot black. Secondaries grey, suffused and mottled with fuscous on discal area, the abdominal margin irrorated with blackish and marked with ochreous towards anal angle; central line blackish but rather obscure. Fringes grey, marked with fuscous, and preceded by an interrupted blackish line. Under surface grey, suffused and irrorated, especially on secondaries, with fuscous; all the wings have a dusky discal dot and central line; primaries have traces of a submarginal line most distinct towards the costa.

Expanse 34 millim.

One male specimen from Kia-ting-fu, June.

Hab. Western China.

Boarmia lenticularia, sp. n.

Primaries whitish, dusted with black and clouded with olivaceous; there is a black spot at the base; first transverse

line slightly indented; second line dentate, curved from below costa to above inner margin; submarginal line black, interrupted and indistinct; discal spot elongate. Secondaries whitish, freckled with brownish; discal spot black; central line blackish, interrupted. Under surface whitish, freckled with brown; the transverse markings of upper surface faintly reproduced on all the wings.

Expanse 34 millim.

One female specimen from Wa-ssu-kow, June.

Hab. Western China.

Boarmia recurvaria, sp. n.

Primaries brown, rather reddish on inner marginal area, and clouded with black at the base; there are two black transverse lines: the first is elbowed below costa and then runs almost straight to inner margin, the second commences in a spot on costa above the elongate black discal spot and is then curved and recurved to inner margin; submarginal line brownish black, indented below costa, interrupted below the middle, and outwardly edged with pale brown; the space between first and second lines is rather tinged with grey, and its upper portion sprinkled with black scales; the outer marginal area is also sprinkled with black scales. Secondaries pale brown, freckled with fuscous, except on the upper portion of the outer marginal area; discal spot and central line black, from the middle of the former there is a short downward streak which gives the idea of a line running in the direction of the anal angle. Fringes concolorous with the wings, and preceded by a blackish line. Under surface pale brown, basal and outer third of primaries darker, discal spot black; secondaries freckled with fuscous as above; spot and line also as above. Antennæ ciliated.

Expanse 42 millim.

One male specimen from Pu-tsu-fong, July.

Hab. Western China.

Boarmia decoraria, sp. n.

White, sparingly powdered with brown, more thickly on basal area, which is limited by a double blackish line indented below costa and above inner margin; there are indications of a central band most conspicuous on the costa; outer marginal area, limited by a curved and recurved blackish wavy line, has two brownish clouds on apical portion; submarginal line blackish, much interrupted and inwardly bordered with brownish. Secondaries have a blackish discal

dot, and the outer marginal area is marked similar to that of primaries. Fringes whitish, marked with brownish, and preceded by an interrupted black line. Under surface whitish, powdered with fuscous; all the wings have a black discal dot, an ill-defined dusky central shade, and a series of blackish dots beyond.

Expanse 25 millim.

A female specimen from Moupin, July.

Hab. Western China.

Boarmia tripartaria, sp. n.

Primaries brownish, with a broad whitish central band: first line curved; second line sinuous—these lines are black and there is blackish suffusion beyond the middle of the central band; there is a small blackish cloud on middle of costa. Secondaries greyish white, with a brownish, oblique, central line. Fringes brown and grey. Under surface greyish, freckled with darker: all the wings have dusky central lines. Antennæ finely ciliated.

Expanse 40 millim.

Two male specimens from Pu-tsu-fong, June.

Hab. Western China.

This species superficially resembles *Boarmia grisea*, Butl.

Boarmia lutearia.

Fidonia lutearia, Leech, Entom., Suppl. p. 50 (May 1891).

Three specimens from Oiwake in Pryer's collection.

Hab. Japan.

Boarmia petrosa.

Tephrosia petrosa, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 372 (1879).

Several specimens from Oiwake and one from Gifu in Pryer's collection.

I obtained the species at Tsuruga in July. Pryer also records it from Ohoyama and Nikko, and there is an example from Hakodate in the National Collection at South Kensington.

Hab. Japan and Yesso.

Boarmia opertaria, sp. n.

Primaries greyish, freckled with blackish; basal and outer marginal thirds brownish, each limited by a blackish line; there is a central, blackish, transverse shade with the black discal spot upon it, this terminates on inner margin near to the limiting line of outer third; submarginal band of the

ground-colour, indistinct towards inner margin, and inwardly edged with fuliginous. Secondaries brownish, freckled and striated with blackish; the blackish discal spot is preceded by a blackish transverse band, and followed by a series of blackish dots representing a central line; submarginal line as on primaries but more obscure. Fringes pale brown, preceded by a black lunulated line. Under surface greyish brown, suffused on the disc with fuliginous; all the wings have two blackish transverse lines, with the discal spot upon the first one; costa of primaries pale ochreous brown, striated with blackish. Antennæ fasciculate.

Expanse 36 millim.

One male specimen in Pryer's collection, and I received one from Mr. Manley of Yokohama.

Hab. Japan.

Boarmia tristaria, sp. n.

Brownish grey. Primaries have fuliginous-brown sub-basal, central, and outer bands, the two latter approximating on inner margin: all these markings are repeated on secondaries. The submarginal line is whitish on all the wings, but not so well defined as in *B. mæsta*. Under surface pale ochreous brown powdered with darker, and suffused with the darker colour on primaries; discal spot black; outer line only reproduced. Antennæ fasciculate.

Expanse 44 millim.

Two male specimens from Kiukiang, June.

Hab. Central China.

This species agrees with *B. mæsta* in the style of marking, but the ground-colour is darker and without any tinge of purple. The antennæ also are fasciculated and not bipectinated as in *B. mæsta*. It belongs to the *Prochina* section of *Boarmia*, Hampson, as also does *B. opertaria*.

Boarmia charon.

Tephrosia charon. Butl. Ann. & Mag. Nat. Hist. (5) i. p. 397 (1878); Ill. Typ. Lep. Het. iii. p. 35, pl. xlix. fig. 4 (1879).

A few specimens from Yokohama and Oiwake in Pryer's collection. I captured examples at Nagasaki in May.

One female specimen from Chang-yang, June.

Distribution. Japan; Kiushiu; Central China.

Boarmia conjunctaria, sp. n.

Male.—Pale brown, heavily clouded and suffused with dark and rufous brown. Primaries have two black, wavy,

transverse lines and a dusky central transverse shade, the latter connected with second line just above inner margin; interrupted submarginal band of the ground-colour, bordered inwardly with fuliginous. Secondaries have a blackish subbasal band and an indistinct blackish central line; submarginal band as on primaries, but more deeply bordered with fuliginous. Fringes dark brown, paler at their base, and preceded by a lunulated black line. Under surface greyish brown; all the wings have a blackish discal dot and a series of short streaks indicating a transverse line beyond; outer margin of primaries bordered with fuliginous, especially towards apex. Antennæ fasciculate.

Female rather darker.

Expanse 42-44 millim.

One example of each sex from Ta-chien-lu, June.

Hab. Western China.

Superficially resembles *B. displicens*, Walk.; this and the preceding species belong to the subsection *Paradarisa* of Hampson's genus *Boarmia*.

Boarmia dilectaria, sp. n.

Whity brown, heavily powdered and clouded with rufous brown, and finely striated with blackish. Primaries have the basal patch darker brown, limited by a double, wavy, blackish line originating in a dark quadrate spot on the costa; discal spot black, surmounted by a blackish spot on the costa; beyond there is a blackish transverse line, which is angulated below costa and again above inner margin; submarginal band represented by a dark cloud on costa, with one below it and an upright elongate patch from inner margin. Secondaries have a black discal spot; serrated blackish central line; submarginal band interrupted above the middle and indistinct towards costa. Fringes of the ground-colour, chequered with blackish, and preceded by a black lunular line. Under surface ochreous brown; markings of upper surface faintly indicated. Body dark brown. Antennæ fasciculated.

Expanse 50 millim.

One male specimen from Ta-chien-lu, June.

Hab. Western China.

Boarmia boarmiaria.

Hypochroma boarmiaria, Guen. Phal. i. p. 282 (1857).

Boarmia inconclusa, Walk. Cat. Lep. Het. xxi. p. 382 (1860).

Boarmia boarmiaria, Hampson, Fauna Brit. Ind., Moths, iii. p. 261 (1895).

One specimen from Kagoshima, in the province of Satsuma, in Pryer's collection.

Distribution. Formosa; Sikhim; Assam; Nágas; Ceylon (*Hampson*); Kiushiu.

Boarmia parvularia.

Tephrosia parvularia, Leech, Entom., Suppl. p. 47 (May 1891).

Two specimens of each sex from Gifu in Pryer's collection.

Hab. Japan.

This species is allied to *B. inceptaria*, Walk., which *Hampson* places in the *Psilalcis* section of *Boarmia*.

Boarmia Rybakowi.

Boarmia Rybakowi, Alph. Rom. sur Lép. vi. p. 61, pl. iii. fig. 4, ♂ (1892).

Alphéraky records this species from Ou-pin, province of Kan-sou, July.

Boarmia selenaria.

Geometra selenaria, Hübn. Geom. fig. 163.

Ophthalmodes cretacea, Butl. Ann. & Mag. Nat. Hist. (5) iv. p. 373 (1879).

Boarmia selenaria, *Hampson*, Fauna Brit. Ind., Moths, iii. p. 264 (1895).

Ascotis selenaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 106.

There were four male and three female specimens in Pryer's collection.

I met with the species at Nagahama in June, and at Fushiki and Gensan in July.

I have also received the species from Ichang, Omei-shan, Ta-chien-lu, Chow-pin-sa, Chia-ting-fu: June and July. Alphéraky (Rom. sur Lép. vi. p. 60) records it from the province of Kan-sou, taken in September.

Distribution. N.W. Himalayas; Nepal; Khásis; Congo; S. Africa (*Hampson*); Europe; Altai; Amur; Corea; Japan; Central and Western China.

Boarmia sordida.

Ascotis sordida, Warren, Novit. Zool. i. p. 435 (1894).

Probably a small form of *B. selenaria*.

Hab. Corea.

Boarmia stipitaria.

Boarmia stipitaria, Oberth. Etud. d'Entom. v. p. 45, pl. iv. fig. 6, ♂ (1880); Graser, Berl. ent. Zeit. 1888, p. 400.

Six male specimens and one female, from Oiwake and Yesso, in Pryer's collection. I captured one male example at Gensan in June.

The wings of this species are white, as Oberthür correctly describes them; but his figure represents a brownish-tinged insect.

Distribution. Askold; Amur; Japan; Corea.

Boarmia glabraria.

Geometra glabraria, Hübn. Geom. figs. 162, 339.

Cleora glabraria, Guen. Phal. i. p. 233.

Selidosema glabraria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 106.

There was one specimen in Pryer's collection, and I took two examples at Shikotan (Kurile Islands) in August. I have one female from the province of Kwei-chow, taken in July; this specimen has a rather broad border on outer margin of primaries.

Distribution. Europe; Japan; Kurile Islands; Western China.

Boarmia repandaria.

Phal. Geometra repandata, Linn. Syst. Nat. i. p. 866.

Boarmia repandaria, Treit., Guen. Phal. i. p. 238 (1857).

Selidosema repandata, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 106.

Boarmia perspicuata, Moore, Proc. Zool. Soc. Lond. 1867, p. 630.

Boarmia trikotaria, Feld. Reis. Nov. v. pl. cxxvi. fig. 10 (1874).

Boarmia iterata, Butl. Proc. Zool. Soc. Lond. 1886, p. 339.

Aleis nudipennis, Warr. Proc. Zool. Soc. Lond. 1888, p. 320.

Boarmia repandata, var. *nobilis*, Alph. Rom. sur Léop. vi. p. 61 (1892).

Appears to be a common species in Central and Western China.

Some of the specimens are not separable in any way from more or less typical European examples. The majority, however, although modifications of the form, are referable to *trikotaria*, Feld. There are also specimens agreeing with *iterata*, Butl., on the one hand, and with *nudipennis*, Warr., on the other, and the connecting-links between these two forms are represented.

One specimen of the *iterata* form was taken by my native collector at Ningpo.

Var. *obsoletaria*, nov.

Pale brownish grey; markings, with the exception of discal dots and obscure dark transverse lines, obsolete.

Four male specimens from How-kow, Thibet: July.

Distribution. Europe; Armenia; Altai; Siberia; Amur; N.W. India; Central, Western, and North-eastern China; Thibet.

Boarmia picata.

Boarmia picata, Butl. Trans. Ent. Soc. 1881, p. 408.

Three specimens from Oiwake in Pryer's collection; Butler's type was from Tokio.

I am inclined to think that *B. picata*, Butl., is only a form of *B. repandata*, but should like to see a larger number of specimens before giving a definite opinion.

The markings are, as regards colour, similar to those of *B. repandata*, var. *conversaria*, but they are transposed.

Hab. Japan.

Boarmia columbinaria, sp. n.

Basal half of primaries dark grey, its external edge clearly defined, dentated and marked with black on the costa and inner margin; beyond there is a large white patch, the costal portion of which increases in width as it approaches the inner margin; a wavy white line traverses this pale band from the white patch to inner margin, where it is most distinct; the outer marginal area is not quite so dark as the basal half of the wing, and about its middle there is an almost square pale patch; submarginal line whitish, bordered inwardly with dark grey. Secondaries have the basal third dark grey, clearly defined; outer third not so dark as the basal; the intermediate area is whitish, dusted with grey, most densely towards the outer area, and traversed by a narrow interrupted blackish band. Fringes pale grey, variegated with darker and preceded by a lunulated blackish line. Under surface fuliginous grey, with pale patches on central area, apex, and middle of outer margin of primaries; the basal two thirds of secondaries also pale. Antennæ bipectinated.

Expanse 48 millim.

One male specimen from Chang-yang, June.

Hab. Central China.

Boarmia secundaria.

Geometra secundaria, Hübn. Geom. pl. xxix. fig. 156.

Boarmia secundaria, Dup. Léop. iv. pl. clxii. fig. 2; Guen. Phal. i. p. 237.

Selidosema secundaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 106.

Four specimens from Yokohama and Oiwake in Pryer's collection seem to be referable to this species. The transverse markings, however, are not so distinct, and the second line of primaries is less serrated.

This form may be known as var. *simpliciaris*.

Distribution. Europe; Japan.

Boarmia cinctaria.

Geometra cinctaria, Schiff. Wien. Verz. p. 101; Hübn. Geom. fig. 166.

Boarmia cinctaria, Treit. Schmett. vi. 1, p. 188; Dup. Lép. vii. pl. clix. figs. 2, 3.

Selidosema cinctaria, Meyrick, Trans. Ent. Soc. Lond. 1892, p. 105.

Boarmia insolita, Butl. Ann. & Mag. Nat. Hist. (5) i. p. 396 (1878); Ill. Typ. Lep. Het. iii. p. 34, pl. xlix. fig. 5 (1879).

There was a fine series from Oiwake and Yesso in Pryer's collection. My native collector took specimens at Hakodate in June.

Some of the specimens are identical with European examples, but others are of the pale form which Butler has described as *insolita*, a variety of *B. cinctaria*, which, according to Græser, also occurs in Amurland.

Distribution. Europe; Altai; Eastern Siberia; Amur; Japan; Yesso.

[To be continued.]

XXXII.—*On a new Mouse from Damaraland.*

By W. E. DE WINTON.

In a paper on a small collection of rodents made by Mr. C. J. Andersson in Damaraland, Mr. Oldfield Thomas (P. Z. S. 1882, p. 266) refers four specimens of a mouse to *Mus silaceus*, Wagn. This determination was found to be wrong by Mr. Thomas himself on visiting the Munich Museum some years later, when he was able to examine Wagner's type. As I have lately been working at the rodents of South Africa, Mr. Thomas very kindly asked me to look at these mice, giving me the benefit of his valuable notes and drawings of the skull of *Mus silaceus* made on the spot. I find the Damaraland mice belong to an undescribed species of a group of which I believe the form hitherto known is *Mus nigricauda* from the same locality and described in the paper referred to above.

The species may be known as

Mus damarensis, sp. n.

Size somewhat larger than *Mus sylvaticus*. Fur long and soft, of that peculiar colour usually associated with desert-living species. Colour above reddish fawn or isabelline, sparingly sprinkled with very fine darker hairs, the colour richest along the dorsal line, fading gradually into grey on the sides and cheeks, all the lower parts with the feet and hands pure white, the hairs being white to their bases. Ears